

NEW GENERA AND SPECIES OF ORIENTAL NOTODONTIDAE (LEPIDOPTERA)

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ABSTRACT

The present contribution contains descriptions of 21 new species of Oriental Notodontidae (Lepidoptera) in the collections of the Rijksmuseum van Natuurlijke Historie, Leiden and of the British Museum (Natural History), London. In all 17 new genera are described for some of the above new species and for a few species previously described by various authors.

SAMENVATTING

Deze bijdrage bevat beschrijvingen van 21 nieuwe soorten van Oost-Aziatische Notodontidae (Lepidoptera) uit de verzamelingen van het Rijksmuseum van Natuurlijke Historie, Leiden en van het British Museum (Natural History), Londen. Voor sommige van de nieuwe soorten en voor enkele reeds eerder beschreven soorten worden 17 nieuwe genera beschreven.

In the present paper descriptions of 21 new species of the Oriental Notodontidae are presented, together with 17 descriptions of new genera, established partly for the new species, partly for some species previously described by various authors.

The material treated originates from the Rijksmuseum van Natuurlijke Historie, Leiden (RMNH), and from the British Museum (Natural History), London (BM). The author is indebted to Dr. A. DIAKONOFF, Leiden, and to Messrs W. H. T. TAMS and D. S. FLETCHER, London, for the loan of this material.

Parosica gen. nov.

Near *Osica* Walker, but the last palpal joint short, minute, not long and slender. Antennae ciliated. Palpi upturned, reaching frons. Hind tibiae with two pairs of spurs; hind tarsi clothed with woolly pilosity.

Male genitalia. Resembling those of *Osica*, differing mainly in the shape of uncus and aedeagus. Uncus produced to a long and narrow, curved process; gnathi slender, curved, bearing a knob at the extremity of the basal straight portion. Tegumen broad. Valva elongate, narrowing distally, for the most part membranous; base of sacculus with a broad and strong process, bearing costally a spine and terminally a bundle of long hairs. Aedeagus slightly shorter than costa, almost straight, robust, bearing terminally a lateral plate and a few denticulations; fultura inferior broad, crescent-shaped. Saccus very short, broad. Sternal plate of the 8th urite elongate-oval.

Type-species: *Parosica nomo* spec. nov.

Parosica nomo spec. nov.

Fig. 1

Antennae, palpi, head and thorax above dark chocolate brown; thorax below buffy; fore legs dark chocolate grey; tarsi ringed with brown; tuft at base of abdomen pale buffy; base of abdomen behind the tuft orange; rest of abdomen light ochreous brownish grey, paler below; anal tuft tinged with rufous buff. Fore wings ochreous brown, darker brown subbasally and in the fore part of the wing from the tip of the cell to the apex; markings consisting of minute blackish lunules, with pale filling; subbasal line wavy; inner and outer lines outcurved; two parallel streaks on the discocellulars, the distal streak bearing a pale buff distal edging; the surface of wing covered with rows of more or less indistinct buff and dark lunules, except at the base and in terminal area; a subterminal and a terminal series of blackish dots edged with whitish proximally; cilia amber brown, with pale rufous buff base, extremity and spots. Hind wing pale yellowish buff at the base, becoming dark grey, darkest in terminal area; cilia as in the fore wings, but slightly paler and duller brown. Length of the fore wing 23 mm.

Holotype, male: West New Guinea, Mt. Nomo, south of Mt. Bougainville, 700 ft., II.1936; paratypes, males: New Guinea, Cyclops Mts., VII.1936 (3 specimens); Humboldt Bay dist., 4.VIII.1937 (BM).

Archigargetta gen. nov.

Antennae bipectinate; palpi upturned, reaching frons; a basal abdominal crest, and a forked anal tuft; hind tibiae with two pairs of spurs. Fore wing rather narrow; apex rounded; termen gently outcurved, oblique; tornus very blunt. Venation: veins 3, 4 from one point; 5 from middle of the discocellular; 6 stalked with 7, 8 + 9; 10 from angle, from one point with 6—9. In hind wing, 3, 4 from one point; 5 very weak, from middle of the discocellular which is incurved; 6, 7 very short-stalked; 8 fused with margin of cell to beyond middle.

Male genitalia. Uncus short, extremity widened laterally; a short prominence on the underside; gnathi slender, curved. Tegumen moderately broad. Valva elongate, rather narrow; a very large knob at the base of costa. Aedeagus longer than costa, broad proximally, then narrowing, almost straight, bearing subterminally a few denticulations; fultura inferior bearing a knob at middle of the distal margin, and with distal angles extended so as to form a kind of frame round the aedeagus. Saccus short, pointed. Sternal plate of the 8th urite broad, narrowing distally, with a faint terminal excision.

Type-species: *Archigargetta cyclopea* spec. nov.

Archigargetta cyclopea spec. nov.

Fig. 2

Antennae grey brown; palpi, head, base of collar dark rufous brown; edge of collar and tegulae blackish brown; middle of thorax dark rufous brown with white hair-scales; underside buffy brown; legs streaked with brown; fore tibiae dark

brown edged with rufous and with a white dot in middle; abdomen umber grey, darker subterminally; anal tuft umber brown. Fore wing red brown, partly stained and suffused with purplish black, and with some silvery scales; inner line wavy, black; edged on both sides with rufous orange; discocellulars with a streak of rufous orange raised scales; outer line obsolete, double, of rufous lunules, very faintly outcurved, running from $\frac{3}{4}$ of costa to vein 2, then vertically; middle area between the lines almost black; costa spotted with pale grey and, towards the apex, with white; a black mark just before tornus, preceded by pale orange and followed by whitish on tornus; outer area with ground colour reduced to longitudinal streaks; subterminal line of round black dots edged with pale grey; two pale orange subapical spots; cilia dark brown, spotted with pale. Hind wings dark sepia grey, paler and tinged with ochreous grey at base; cilia with a pale basal line. Length of the fore wing 18.6 mm.

Holotype, male: Northern Dutch New Guinea, Waigeu, Camp Nok, 2500 ft., IV.1938 (L. E. CHEESMAN). Paratypes, males: Waigeu, V.1938; Cyclops Mts., VI.1936 (BM).

Polychoa metallica spec. nov.

Fig. 3

Antennae light brown; palpi, head and thorax above dark brown, slightly mixed with yellowish; thorax below and legs pale buff; fore legs streaked with brown; basal lateral abdominal crests cream coloured; short median crest dark brown; abdomen light grey brown; anal tuft darker. Fore wings dark Vandyck brown, with markings of light green metallic scales: a basal costal triangle extending to base; three costal spots, the middle one the largest; diffuse scaling in dorsal area, extending across the wing and reaching the disc; an apical spot, connected with a double row of partly diffuse terminal spots; a few green scales beyond the cell; a subterminal series of minute white dots, the one in interval III placed more distally; cilia with whitish basal dots and paler tips. Hind wings chocolate grey, paler at the base and on cilia. Length of the fore wing 18 mm.

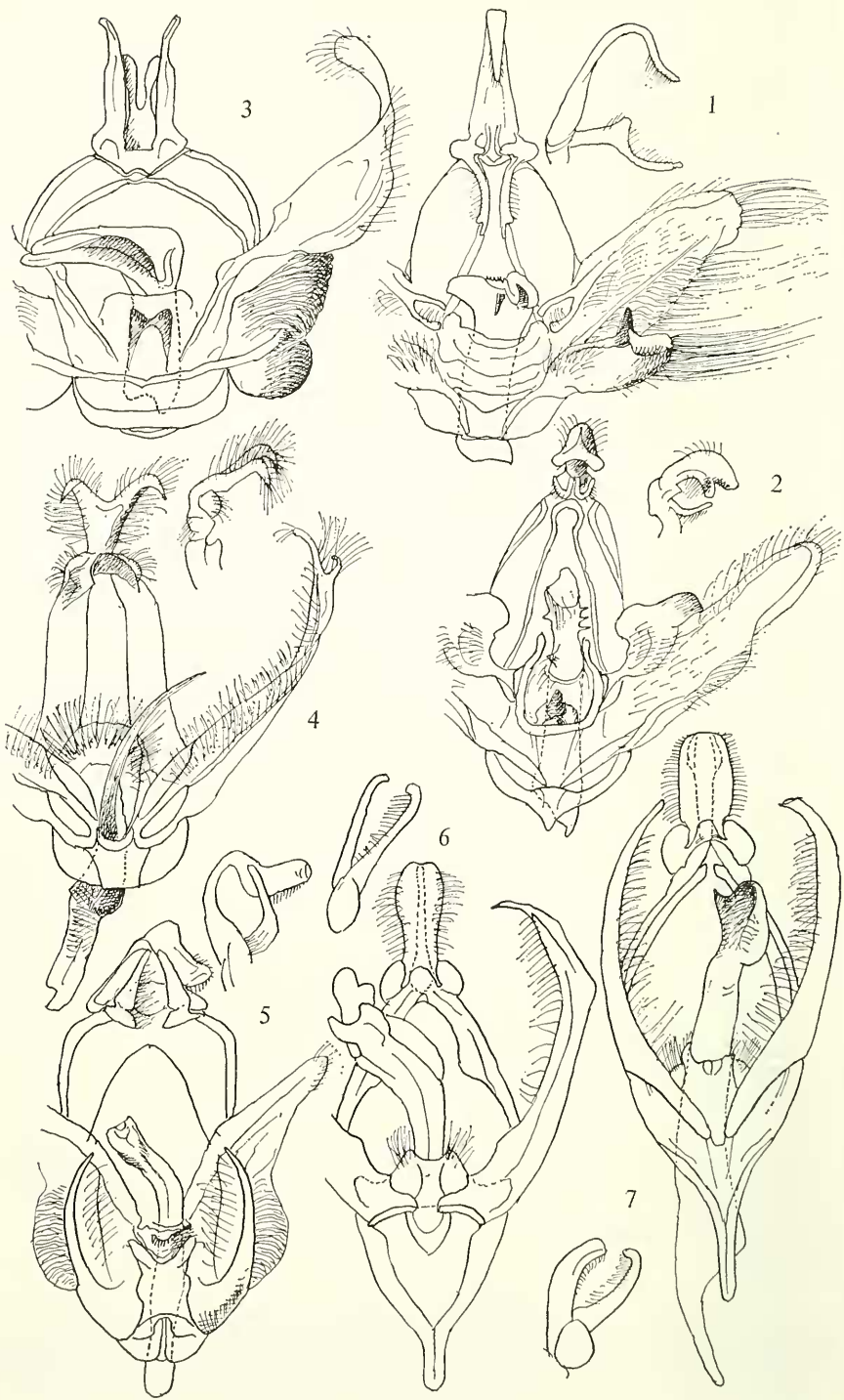
Male genitalia. Uncus bifid, with the branches nearly parallel; gnathi longer than the uncus, slender, curved, slightly broadened and hooked at the extremity. Tegumen rather narrow. Valva very broad at base, with the extremity produced into a long curved process; sacculus membranous, striated, with a large basal lobe. Aedeagus stout, straight, with the distal half bent at nearly straight angle; fultura inferior produced, with the distal margin excised. Saccus very short. Plate of the 8th sternite elongate, rounded distally.

Polychoa styphlopis Turner, the type species of the genus, has straight gnathi. Aedeagus only slightly arched; vesica bearing a few minute cornuti. Fultura inferior narrowing distally.

Holotype, male: New Guinea, Cyclops Mts., 2000 ft., VII.1936 (L. E. CHEESMAN) (BM).

Blakeia gen. nov.

Proboscis reduced; antennae bipectinated for $\frac{3}{4}$, with a broad basal crest; palpi short, porrect, thick, last joint minute, pointed, slightly hanging; thorax with a



median crest; abdomen long, with a double anal tuft. Fore wings rather narrow, triangular; costa straight to near apex which is broadly rounded; termen oblique, gently arched; tornus marked; dorsum quite straight. Venation: veins 2, 3, 4 well separated and equidistant; 5 from middle of the discocellular; a long narrow areole present; 6 from about one third of areole; 7 from areole before the tip; 8 + 9 and 10 from tip of areole. In hind wings, veins 3, 4 from about one point; 5 from middle of the discocellular, weak; 6, 7 short-stalked; 8 fused to cell for more than $\frac{1}{2}$.

Male genitalia. Uncus narrow at base, then broadening and forked, prongs curved and pointed; gnathi not developed. Tegumen rather narrow. Valva very elongate and narrow, forked at tip. Aedeagus as long as costa, moderately robust proximally, ending in a long curved and pointed process; fultura inferior not developed; fultura superior placed distally, lunulate, covered with hair. Saccus short, rounded. Sternal plate of the 8th urite almost oval.

Type-species: *Blakeia marmorata* spec. nov.

Blakeia marmorata spec. nov.

Fig. 4

Antennae rufous brown; basal tuft rusty red; palpi rufous grey; head grey brown; the short collar, black edged with pale; tegulae greyish; dorsal crest blackish; thorax below greyish buff; legs brown inside; abdomen, including the basal crest, grey brown; underside buffy; anal tufts light rufous brown. Fore wings cream coloured, sprinkled with rusty and umber brown; costa with dark and pale blotches; dorsum spotted with blackish; inner line double, vertical to below the cell where it meets a square black spot, then with both elements diverging; an obscure whitish discocellular mark; outer line oblique, of minute black lunules, filled in distally with rusty, only reaching middle of wing, and followed by several rows of obscure rusty lunules; a subterminal series of black streaklets and spots, those in intervals I, IV, V and VI the largest; a spot of black and rusty scales mixed, before tornus; terminal area paler, with a series of rounded black dots, slightly edged with white proximally; a series of fine terminal lunules; cilia spotted with rusty and tipped with whitish. Hind wings rather dark chocolate grey; cilia obscurely spotted with dark, and with pale bases and tips. Length of the fore wing 21.5 mm.

Holotype, male: S.E. Borneo, Samarinda, XII.1938 (BM).

Pseudoturnaca gen. nov.

Antennae of male bipectinated for $\frac{1}{2}$; palpi upcurved; last joint short, pointed; fore tibiae and tarsi covered with long, dense, furry pilosity; hind tibiae with two pairs of spurs; abdomen long, with a terminal brush. Wing shape as in *Turnaca* Walker; fore wing with a scaly tooth after the base. Venation: in the fore wing,

Fig. 1—7. Male genitalia. 1, *Parosica nomo* g. et sp. n.; 2, *Archigargetta cyclopea* g. et sp. n.; 3, *Polychoa metallica* sp. n.; 4, *Blakeia marmorata* g. et sp. n.; 5, *Pseudoturnaca samarinda* g. et sp. n.; 6, *Quadricalcarifera bioculata* sp. n.; 7, *Q. fraseriana* sp. n.

veins 3, 4 separated; 5 from the middle of the discocellular; 6 from angle of cell; a very narrow areole present; 7 and 10, 8 + 9 from the extremity of the areole. In the hind wings, veins 3, 4 from a point; 5 from the middle of the discocellular, weak; 6, 7 stalked for about one fifth; 8 approximated to cell to before the extremity.

Male genitalia. Very different from those in *Turnaca*. Uncus rather narrow, curved, with the extremity spatulate and upcurved; gnathi sickle-shaped. Tegumen broad distally. Valva broad at the base, then produced to a narrow process; base of the sacculus with a long, curved process. Aedeagus slightly longer than costa, rather slender, curved; fultura inferior excised distally and produced at the angles. Saccus very short, rounded. Plate of the 8th sternite with the proximal margin convex, slightly narrowing distally, with the distal angles slightly produced and rounded.

Type-species: *Pseudoturnaca samarinda* spec. nov.

Pseudoturnaca samarinda spec. nov.

Fig. 5

Antennae pale brown; palpi cream coloured, brown above; head, collar and thorax above chocolate brown, with a whitish longitudinal line becoming broader on dorsum of which it occupies the whole middle portion; tegulae chocolate brown at the base, becoming pale yellowish brown; underside and legs cream coloured; fore legs tinged with brown; abdomen above chocolate brown, spotted with creamy at middle, the spots growing larger distally; anal tuft buffy mixed with brown; underside of abdomen cream coloured. Fore wing cream coloured, faintly sprinkled with brown and tinged with that colour in median and dorsal areas; discocellular mark and a distal line of ground colour, the latter parallel to the termen; numerous black dots on the costa, on outer margin of the distal line and in the brown dorsal area; a chocolate brown spot just before the tornus; a sub-terminal series of black dots; cilia faintly spotted with brown. Hind wing chocolate brown, of a lighter shade than the abdomen; cilia pale, obscurely marked with brown. Length of the fore wing 16 mm; length of abdomen with tuft 18 mm.

Holotype, male: S.E. Borneo, Samarinda, X.1938 (M. E. WALSH) (BM).

Quadricalcarifera bioculata spec. nov.

Fig. 6

Antennae rufous brown; palpi chocolate brown, buffy below; head and collar yellowish buff; thorax above and tegulae chocolate brown; underside and legs rufous buff; fore legs streaked with brown; basal abdominal tuft dark chocolate brown in the median portion, rufous buff laterally; abdomen rufous brown above, orange below; anal tuft mixed with brown and whitish. Fore wing rufous brown, becoming grey brown in the distal half; inner line distinct only below cell, out-curved in interval I and the anal interval; costa shortly after base bearing a broad pale yellowish buff streak, extending to slightly beyond half of wing, and connected with the upper typical marks; cellular mark elongate oval; discocellular

mark also oval, but directed vertically; subcellular mark oval, nearly connected with the upper marks; outer line consisting of black lunules, rather obsolete, more or less parallel to termen; subterminal line fine, undulated; a faint pale shadow in apical area; cilia spotted with creamy. Hind wing yellowish white, tinged with light brown in the anal area; terminal line light brown; costal area barred with brown and bearing a large brown grey subapical patch; cilia grey brown subapically. Length of the fore wing 22.5 mm.

Holotype, male: S.W. Sumatra, Barisan Range, 2500 ft., X-XI.1921 (C., F. & J. PRATT). Paratype, male: S.W. Sumatra, Korintji, 7300 ft., VIII-IX.1921 (C., F. & J. PRATT) (BM).

Quadricalcarifera fraseriana spec. nov.

Fig. 7

Antennae rufous brown; palpi whitish, chocolate brown above; head and thorax above dark grey brown; underside of thorax and legs greyish buff; abdomen pale greyish buff; anal tuft dark grey. Fore wings ochraceous brown with a greyish tinge and suffused except in the outer area with slaty grey; inner line represented by a costal and a dorsal black dot; outer line fine, of black lunules, more or less parallel with the termen, but slightly incurved in the upper portion; typical marks edged with whitish; subterminal line fine, continuous, ladder-shaped; cilia dark grey brown with pale dots. Hind wings whitish, tinged with rufous orange in the anal area; a brownish terminal line; costal area dark grey brown, almost black subapically, with a lighter grey brown apical band; cilia whitish, but grey brown in apical area. Length of the fore wing 18 mm.

Male genitalia. Uncus narrow at the extremity which is rounded; gnathi fused, slightly longer than the uncus, upcurved. Tegumen narrow. Valva long and narrow, with the elements fused, the costa produced to a claw-like process. Aedeagus much longer than costa (about 5 mm as against 3.—3.5 mm), rather robust, broadened proximally, bearing subterminally a small lateral tooth; fultura inferior with lateral tufts of hairs. Saccus triangular, produced to a pointed process. Plate of the 8th sternite concave distally, with the distal margin slightly denticulate.

Holotype, male: Singapore, Fraser's Hill, 17.VI.1930 (V. N. RILEY) (BM).

Quadricalcarifera murina spec. nov.

Fig. 8

Antennae rufous brown; palpi whitish, chestnut brown above; periocular region chestnut; head and a median stripe of the collar whitish; rest of the collar mixed with chestnut brown; thorax above chestnut brown mixed with whitish; flanks and legs pale greyish buff; gula, pectus and inside of fore legs chestnut brown; abdomen rufous grey with the basal crest chestnut brown. Fore wings rufous brown grey with a faint green tinge except at base; inner and outer lines dark brown, broad, shadowy and diffuse, the latter faintly angled outwards in interval III; DC mark indistinct, whitish; cilia dark brown with dots and extremity pale. Hind wings white; a broad costal and terminal band greyish chocolate brown;

costa barred with greenish; cilia as in fore wings. Length of the fore wing 15 mm. In female, the greenish tinge in fore wings restricted to base, costa and dorsum; outer line more distinct, composed of dark chestnut, almost blackish spots, rather irregular. Larger: length of fore wings 21 mm.

Male genitalia. Uncus rather narrow, gradually broadening distally and rounded terminally; gnathi fused, almost straight except at the tips which are upcurved and slightly excised. Tegumen narrow. Valva leaf-shaped, with a small subterminal costal lobe and the extremity produced to a finger-shaped process. Aedeagus more than twice the costa in length, robust, nearly straight, spoon-shaped terminally; fultura inferior cup-shaped. Saccus rounded, produced into a rather short straight process. Sternal plate of the 8th urite with a short proximal process.

Holotype, male: New Guinea, Mt. Kebea, 6000 ft., VII.1903 (A. E. PRATT). Allotype, female: Dutch New Guinea, Mt. Kunupi, Menoo Valley, Weyland Mts., 6000 ft., XII.1920-I.1921 (C., F. & J. PRATT) (BM).

Quadricalcarifera ceramensis spec. nov.

Fig. 9

Antennae rufous brown; palpi cream coloured, dark brown above; head and thorax above rufous brown mixed with white, the collar nearly wholly white; thorax below and legs pale buffy; tuft at base of abdomen rufous brown; abdomen rufous grey, paler below. Fore wings dark chocolate brown; basal half of costa to cell white; inner line represented by a small black costal spot, a triangular spot in cell and a patch below cell, the latter followed by a white semicircular spot; distal half of cell and discocellular mark white; outer line broad, blackish, with a few whitish scales, strongly incurved between veins 8—9 and 4, produced towards termen in interval III, then parallel with termen; proximally from outer line, a row of rather diffuse whitish spots; subterminal line very indistinct; cilia spotted with whitish. Hind wing whitish, more or less tinged or stained with rufous brown; anal area pale buff; costa bearing at middle a thin brown streak, and terminally a large rufous brown and black spot; cilia whitish. Length of the fore wing 20 mm.

The amount of white is very variable.

Male genitalia. Uncus rather broad, broadening and rounded terminally; gnathi fused, longer than uncus, ending in two points and strongly upcurved. Tegumen very narrow. Valva relatively short and broad, ending in a slender process. Aedeagus longer than valva (about 4 mm as against 2.4 mm), robust, faintly arched, broadened and produced proximally; middle portion covered with minute spinules, with a row of the same continuing laterally up to the extremity; fultura inferior concave distally with a bundle of stiff setae at angles. Saccus triangular, produced to a slender process. Plate of 8th sternite broader proximally; proximal process moderate; distal margin excised at middle.

The female has shorter antennal ciliations; inner line much better formed, sharply incurved above cell, then oblique inwards, sharply broken and much more distal between the anal and dorsum; terminal area slightly suffused with whitish. Length of the fore wing 22 mm.

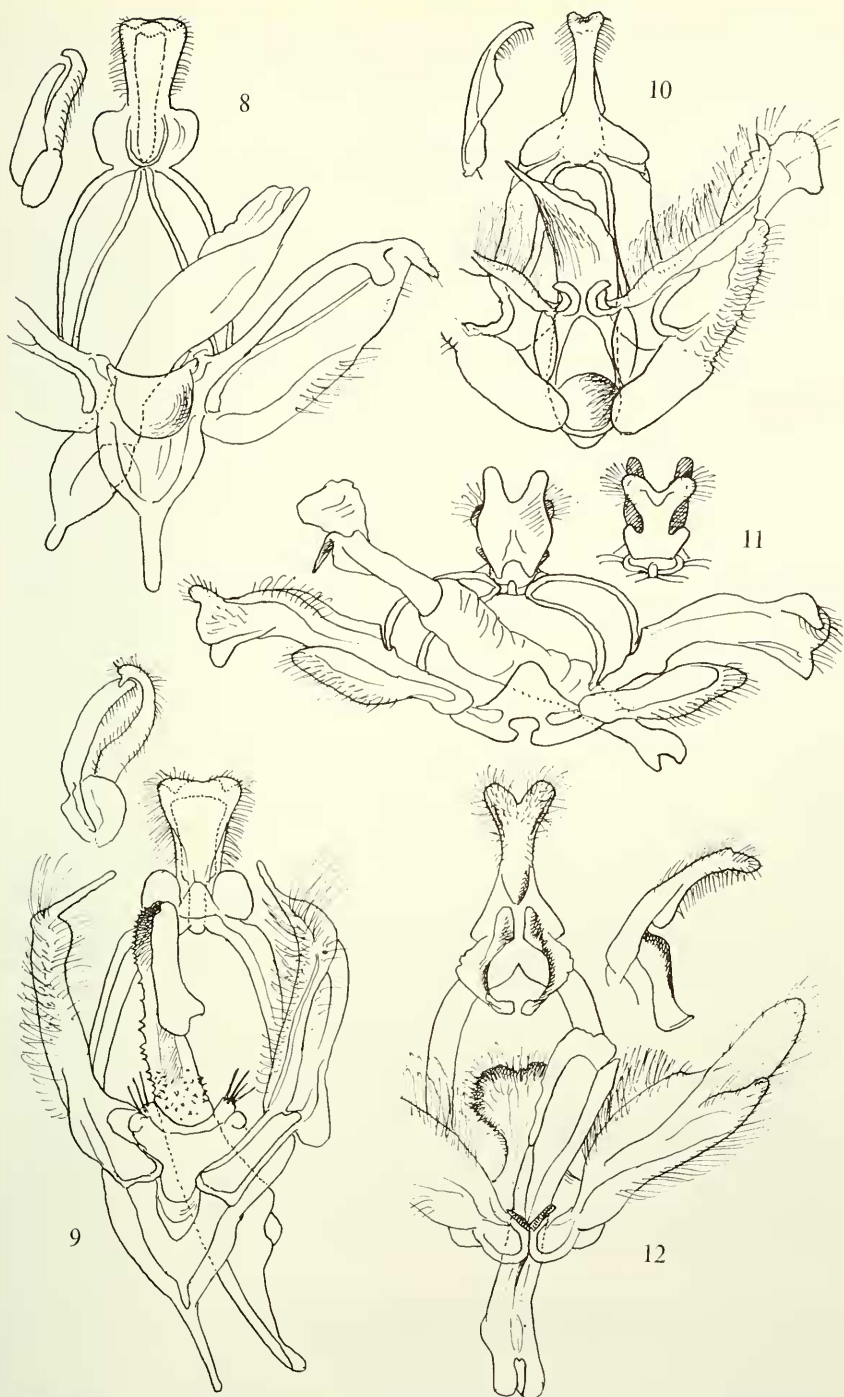


Fig. 8—12. Male genitalia. 8, *Quadricalcarifera murina* sp. n.; 9, *Q. ceramensis* sp. n.; 10, *Kumataia producta* g. et sp. n.; 11, *Oreodonta gigantea* (Elwes) g. n.; 12, *Rodneya caudata* g. et sp. n.

Holotype, male, three paratypes, males, and allotype, female: Central Ceram, Manusela, 6000 ft., X.-XII.1919 (C., F. & J. PRATT) (BM).

Quadricalcarifera triguttata spec. nov.

Fig. 20

Antennae brownish orange; palpi, head, base of collar and thorax above dark maroon; shoulders paler; thorax below and legs rufous brown; fore legs streaked with maroon; small tuft at the base of the abdomen dark maroon; abdomen brownish orange. Fore wing dark brownish orange, purest at the base and in the dorsal area, otherwise much suffused with darker brown, and with minute, rather sparse metallic greenish blue scales; inner line double, black, filled in with greenish blue scales, faintly oblique inwards; a subcellular semicircular spot of creamy, preceded by a dot of the same colour; a heart-shaped creamy spot in cell, and an elongate spot on discocellular, both with a pale orange central shadow; costa spotted with creamy in distal third; outer line composed of greenish blue lunules, beginning very near the apex, running inwards, strongly broken on vein 4, with the element in interval III placed much more distally; a terminal series of irregular greenish blue lunules, edged proximally with dark; cilia concolorous, finely streaked with paler on the extremities of veins. Hind wing rufous buff with a rufous brown terminal line; costal area dark orange brown, with a rufous buff bar before the apex; cilia with a rufous brown median line. Length of the fore wing 20,5 mm.

Male genitalia. Uncus narrow, slightly broadened and rounded terminally; gnathi of the same shape, strongly upcurved distally. Tegumen narrow, but angularly broadened in middle. Valva relatively very narrow, with the elements fused; a spine-like terminal process; base of costa with a short projection facing inwards. Aedeagus longer than valva (4.5 mm as against 3.2 mm), rather slender, with a slender, curved terminal process; fultura inferior well developed. Saccus triangular. Sternal plate of the 8th urite broad and short; proximal process short, broadened terminally; distal margin slightly excised in middle and produced at angles.

The dark rufous colour, with bluish reflections, and conspicuous pale spots, make this species rather distinctive.

Holotype, male: Midden Oost Borneo Expeditie, 1200 m, near L. Petak, 18.X.-1925 (H. C. SIEBERS) (RMNH).

This specimen has been examined by the late Prof. Dr. W. ROEPKE and bears a label in his hand: "Holotype, *Fentonia triguttata* sp. nov.". I have retained ROEPKE's unpublished specific name.

Quadricalcarifera ferrea spec. nov.

Fig. 15

Antennae umber brown; palpi pale buff; palpi above, periocular region, gula, inside of fore tibiae, fore tarsi, chocolate brown; vertex, thorax above and tuft at

the base of the abdomen, grey brownish olive; underside of thorax and legs greyish cream; outer side of fore tibiae sprinkled with chocolate brown; abdomen grey brown; underside pale buff. Fore wing rather dark greyish umber brown; base with pale green scales; inner line, double, blackish, slightly oblique inwards; in cell and on discocellular two rather inconspicuous greenish white rings; outer line broad, greenish black, incurved in intervals IV—V, otherwise more or less parallel with the termen; terminal line rather irregular, dark brown; costa spotted with pale in distal half; cilia dark brown with a pale edge and streaklets at the extremities of the veins. Hind wing brownish white, more or less stained with brown; costal area broadly dark brown, barred with pale; ends of veins broadly brownish; cilia with pale tips. Length of the fore wing 16.5 mm.

Male genitalia. Uncus rather short, narrow at base, then almost heart-shaped, with a slight terminal excision; gnathi slightly shorter than uncus, upcurved, extreme ends not fused. Tegumen very narrow. Valva narrow, elements fused nearly to the tips, which are rounded. Aedeagus nearly twice as long as the valva, moderately stout, with the distal end slightly broadened and bearing a short subterminal lateral process; vesica placed laterally; fultura inferior shield-shaped, with the angles slightly produced and bearing a tuft of stiff hairs. Saccus relatively short, triangular, produced into a short slender process. Sternal plate of the 8th urite shaped nearly as in *Q. triguttata* spec. nov., but the proximal process much more slender, and the distal margin bearing a row of spinules, the median pair being the longest.

Holotype, male: North Celebes, Minahasa, 1921 (RMNH).

Quadricalcarifera ardjuna spec. nov.

Fig. 16

Antennae pale brown; palpi buff, with the upperside dark brown; head and thorax above buffy grey with a greenish tinge; underside of thorax and legs pale buff, fore legs streaked above with light umber brown; tuft at the base of the abdomen buffy grey; rest of the abdomen browner. Fore wing dark grey with a rufous tinge; lines broad, double, filled in with greenish grey; extreme base greenish grey, edged distally with black; inner line oblique; a very indistinct narrow discocellular spot of whitish, in a greenish grey streak, filling the cell and the space beyond cell; outer line broadly wavy, composed of lunules, those placed in intervals IV and V, more proximal; costa spotted with black and pale; subterminal line irregular; cilia blackish with a pale edge and creamy spots. Hind wing lighter than fore wing; base and anal area yellowish; costa broadly barred with dark and pale; cilia pale buff, partly spotted with blackish. Length of the fore wing 18 mm.

Male genitalia. Uncus relatively large, broad, with parallel lateral sides and with slightly broadened and folded subterminal edges; gnathi narrow, broadened and semi-circular terminally, almost straight, curved only terminally. Tegumen narrow. Valva relatively very short, hardly reaching the base of the uncus, with the elements fused nearly to the tips. Aedeagus nearly twice as long as the valva, robust, curved subterminally, with a subterminal ring and a terminal area of minute

cornuti; fultura inferior with the distal angles produced and bearing a small tuft of stiff hair. Saccus triangular, with the terminal deviation very commonly observed in the genus. Sternal plate of the 8th urite elongate, slightly broadened distally; proximal process rather short, broader terminally; distal margin with a median excision, bordered at each side by a convexity serrated on its margin; angles slightly produced and acute.

"*Stauropodopsis*" *grisescens* Roepke is nearly related to this species. *Stauropodopsis*, of course, is but a synonym of *Quadricalcarifera*.

Holotype, male: East Java, Mt. Ardjoeno, Djoenggo, 1500 m, IX.1937. With a label, inscribed by ROEPKE: "holotypus" (RMNH).

Quadricalcarifera viridimargo spec. nov.

Fig. 19

Antennae reddish brown, outer pectinations yellowish; tuft at the base of the antennae whitish, sprinkled with brown; palpi light buff below, dark brown above; periocular region dark brown; vertex and collar chocolate brown sprinkled with whitish; collar edged with pale; thorax above purplish grey brown; underside and legs brownish creamy; tuft at the base of the abdomen purplish grey brown; rest of the abdomen paler laterally and ventrally. Base of the fore wings chocolate brown, limited by the broad double whitish inner line, which runs obliquely from $\frac{1}{4}$ of costa to $\frac{1}{5}$ of dorsum; rest of the wing purplish grey; costa whitish in the middle portion, then blackish; discocellular mark oval, whitish; dorsal area with a pale mark between the main lines; outer line composed of pale lunules, running more or less parallel with the termen; costa bearing in the apical $\frac{2}{5}$ a broad triangle covered with metallic grey scales, ending in intervals IV—V, and edged with blackish distally; a continuous series of metallic green terminal spots, edged with dark proximally; cilia concolorous, spotted with whitish at the extremities of the veins. Hind wings pale brownish; anal area yellowish brown; veins and terminal line light chocolate brown; costa broadly barred with white and purplish brown, with a large darker subapical mark; cilia white at tips. Length of the fore wing 19 mm.

Male genitalia. Uncus very short, thick; extremity rounded and curved; gnathus short, straight, with a terminal hook. Tegumen rather broad. Valva elongate, narrow, with the elements totally fused, and with a long, nearly straight, slender terminal process. Aedeagus about $\frac{1}{5}$ longer than the valva, moderately stout, broadened and curved terminally, and bearing a slender curved terminal process with the distal edge finely serrated; fultura inferior elongate, produced at the distal angles. Saccus triangular, with sides slightly angled in middle, and with a rather short slender terminal process. Sternal plate of the 8th urite with parallel sides, a rather long proximal process, and the distal margin slightly excised in middle and produced at the angles.

Holotype, male: South East Borneo, Samarinda, XI-XII.1938 (M. E. WALSH) (RMNH).

A label in Prof. ROEPKE's hand says: "Something similar to *Somera cyanea*? / Gedeh Java".

***Quadricalcarifera doloka* spec. nov.**

Fig. 17

Antennae orange brown; palpi creamy below; upperside of palpi, pericocular region, gula, inside of fore tibiae, dark brown; vertex and thorax above rufous grey; underside and legs pale buff; fore tibiae brownish on the outer side; tarsi ringed with brown; tuft at the base of the abdomen rufous brown; rest of the abdomen orange brown. Fore wing brown, strongly suffused with sky-blue scales, especially at the base and in the outer area; markings rather indistinct; inner line consisting of a few dark spots, one at $\frac{1}{4}$ of the costa, one in cell placed more distally, and one below cell, much more proximad; outer line of more or less lunulated spots, nearly parallel with the termen, running from $\frac{3}{4}$ of costa to $\frac{2}{3}$ of dorsum; mark in interval III more distal; subterminal line irregular, broken, consisting of brown lines; cilia brown spotted with pale. Hind wing yellowish white at the base and along anal margin, otherwise bright orange umber; costa spotted with brown with blue scaling and with white; cilia broadly edged with white. Length of the fore wing 19.5 mm.

Male genitalia. Uncus narrow, curved, with the extremity spatulate and slightly upturned; gnathi almost straight, with the extreme apices free. Tegumen narrow, angularly broadened at middle. Valva very elongate and narrow, with the elements fused except at the extreme tips; at $\frac{2}{3}$, a small semicircular broadening. Aedeagus $\frac{1}{4}$ longer than the valva, very slender except at the base, slightly S-shaped; extremity produced into a longish, very slender, slightly hooked process; fultura inferior produced, narrow, slightly broadened distally. Saccus triangular, produced into a medium long, slender, pointed process. Sternal plate of the 8th urite cup-shaped; proximal process rather short, broader distally; angles of distal margin produced into broad lobes directed outwards.

Holotype, male: East Coast of Sumatra, Dolok Ilir, 8.VI.1936 (Ir. Uil) (RMNH). Labelled by ROEPKE "*Stauropodopsis grisescens* Roepke". Both the colour and the genitalia of the latter species, of which the type specimen has been dissected and examined, differ notably from those of the new species.

***Vaneeckeia* gen. nov.**

Fig. 27

The male genitalia of *Stauropus ovalis* van Eecke have proved to belong to a peculiar type, sufficiently different from the common *Quadricalcarifera* pattern to justify the creation of a new morphotaxon of a generic level.

Antennae bipectinated for $\frac{3}{4}$, longest pectinations $6 \times$ the breadth of the shaft in male, $3\frac{1}{2} \times$ in female; palpi short, upcurved; hind tibiae with two pairs of spurs, the basal pair very short. Fore wing rather narrow; costa faintly arched in distal $\frac{1}{3}$; apex rounded; termen oblique, evenly rounded; tornus very blunt; dorsum more or less straight. Venation: 2 from $\frac{3}{4}$ of cell; 3 and 4 separated; 5 from the middle of discocellular; 6 very short-stalked with 7—10; stalk of 7, 10, (8 + 9) slightly shorter than stalk of 10 and (8 + 9). Costa of the hind wings faintly arched. Venation: 2 from $\frac{2}{3}$ of cell; 3, 4 well separated; 5 from near upper

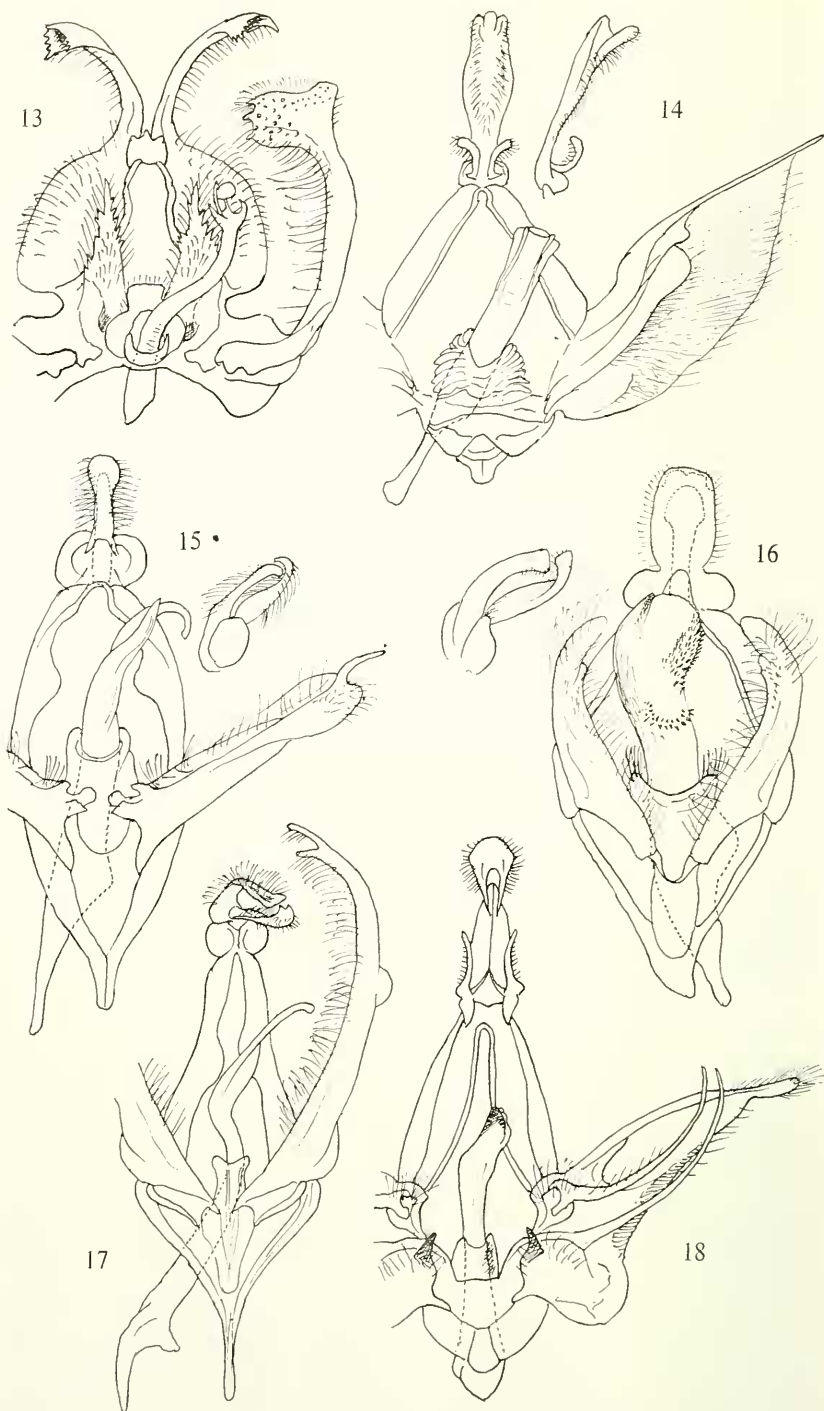


Fig. 13—18. Male genitalia. 13, *Benbowia dudgeoni* g. et sp. n.; 14, *Oxoia smaragdiplena* (Walker) g. n.; 15, *Quadricalcarifera ferrea* sp. n.; 16, *Q. ardjuna* sp. n.; 17, *Q. doloka* sp. n.; 18, *Allata novaeaguineae* sp. n.

third of the discocellular, very weak; 6 and 7 stalked for $\frac{1}{3}$ of 6; 8 approximated to cell to near extremity.

Male genitalia. Uncus moderately short, compressed, covered with dense hair, produced into a beak-like process; gnathi narrow, fused, arched. Tegumen narrow. Valva elongate and narrow, with a square process in middle, covered with stiff hairs or spinules. Aedeagus slightly longer than valva, moderately robust, arched, bearing a small subterminal process; fultura inferior small, semi-circular, hairy. Saccus semicircular, with a short process. Sternal plate of the 8th urite broad, angular; proximal process short; proximal angles slightly produced; lateral margins angled inwards subterminally.

Differs from *Quadricalcarifera* mainly by the male genitalia, and also in the unusual wing pattern.

Type-species: *Somera ovalis* van Eecke.

Taiwa gen. nov.

Fig. 26

Differs from *Quadricalcarifera* in the structure of the male genitalia.

Male genitalia. Uncus very short, slightly compressed, curved; gnathi fused, heart-shaped, shorter than the uncus. Tegumen narrow, slightly broadened at middle. Valva elongate and moderately narrow, without trace of a differentiation of the elements; termen squarish. Aedeagus one half as long as valva (9.4 mm as against 6.1 mm) and nearly as long as the whole structure, very slender, nearly straight; proximal extremity serrated; vesica lateral; fultura inferior produced at the distal angles so as to form lunulate, hairy labides. Saccus triangular, with a rather long, slender process. Sternal plate of 8th urite shield-shaped, with a very slender proximal process, the distal margin bearing at middle a small double projection.

Type-species: *Stauropus confusus* Wileman.

Parasinga gen. nov.

Fig. 24

Another genus of the *Quadricalcarifera* group, differing mainly in the aberrant male genitalia.

Antennae bipectinate to near extremity; basal joint with a scaly tuft; palpi longish, slightly upcurved; last joint hidden; a large occipital crest; base of the abdomen with a double crest; hind tibiae with two pairs of spurs. Wing shape as in *Quadricalcarifera*. Venation: in the fore wings, veins 3 and 4 much approximated; 5 from upper third of the discocellular; 6 from a point with 7—10; 7 short-stalked with 10, 8 + 9; 10 long-stalked with 8 + 9. In the hind wings, veins 3 and 4 from a point; 5 from about the upper third of the discocellular; 6 and 7 stalked for $\frac{1}{3}$; 8 approximated to cell for a distance before middle.

Male genitalia. Uncus narrow, beak-shaped; gnathi fused, very narrow, slightly

broadened terminally. Tegumen broad at base, then very narrow. Valva elongated, moderately broad; extremity forming a lobe covered with dense black hair or spinules; fold of the saccus very broad, angulate. Aedeagus longer than valva, very slender although slightly broadened before middle, arched; proximal end spoon-shaped; distal end produced into a slender rod; fultura inferior very well developed, roughly triangular. Saccus with a long and slender process. Sternal plate of 8th urite elongate, rather narrow, with a short proximal process; distal margin bilobate.

Type-species: *Somera lichenina* Butler.

***Parasinga pallidicollis* spec. nov.**

Fig. 25

Shaft of the antennae whitish; pectinations rufous; palpi pale buff, brown above; head cream coloured; occiput, collar and base of tegulae whitish; rest of tegulae and thorax above dark chocolate brown; thorax below and legs pale buff; inside of fore leg brown; basal abdominal crest creamy buff; rest of abdomen tinged with chocolate grey, becoming pale olive and finally dark grey brown; underside of abdomen pale buff. Ground colour of the fore wings creamy greyish tinged with pale olive green and irrorated with a few blackish scales; basal part of costal area whitish; base below cell, chocolate brown to the inner line; latter indistinct, wavy, nearly vertical; costa spotted with brown; outer line very obsolete, beginning in a large subapical chocolate brown spot, but represented only by a few pale scales with one or two dark dots, and ending in a subternal spot of chocolate brown; cell- and discocellular marks represented by whitish edgings; some whitish on the distal margin of both chocolate brown spots; subterminal line very fine, wavy; cilia light chocolate brown, spotted with yellowish. Hind wings pale orange or Naples yellow at the base and in anal area; rest tinged with chestnut brown; costal area greenish, broadly barred with chocolate brown; cilia light chocolate brown, with pale ends and spots. Length of the fore wing 18 mm.

Male genitalia. Differ from those of *P. lichenina* (Butler) in the following details: gnathi narrower and pointed at the extremity; fold of sacculus bearing after middle a spine-like process; termen of valva cut squarely, not rounded; aedeagus relatively shorter, as long as the valva, and still more slender; fultura inferior much less developed and clad with long hairs; sternal plate of the 8th urite narrowing distally.

Holotype, male: South East Borneo, Samarinda, XII.1938 (M. E. WALSH) (BM).

***Benbowia* gen. nov.**

Differs from *Stauropus* Germar in the male genitalia which show many differences, and from some genera of the *Desmeocraera-Quadricalcarifera* complex in having a single pair of spurs on the hind tibiae.

Antennae of male bipectinate for more than $\frac{3}{4}$; palpi moderate, upturned,

rather slender. Hind tibiae with a single pair of spurs, the inner spur about twice as long as the outer. Wings shaped as in *Quadricalcarifera*. Venation: in the fore wings, veins 3, 4 from one point; 5 from middle of discocellular; 6 from upper angle of cell, at a point with 7—10; 7 moderately stalked with 10, 8 + 9; 10 moderately stalked with 8 + 9. In the hind wings, veins 3, 4 from one point; 5 from slightly above middle of discocellular; the latter very oblique; 6, 7 stalked for about $\frac{2}{3}$ of 6; 8 approximated to cell to beyond middle of the latter.

Male genitalia. Uncus not developed; angles of 9th segment produced to imitate arms of uncus; tegumen very broad, almost circular. Valva narrow, curved, broadening apically; base of costa bearing a lobe-shaped or triangular process. Aedeagus shorter than valva, slender, arched, ending in a kind of trident; fultura inferior small. Saccus not developed; proximal extremities of vinculum produced. Plate of the 8th sternite more or less semicircular, with a moderate or short proximal process; distal margin produced at middle in a forked process.

Type-species: *Stauropus virescens* Moore.

***Benbowia dudgeoni* spec. nov.**

Fig. 13

Base of antennae whitish; rest rufous brown with the shaft paler; palpi buff, brown above; head and thorax above pale Prussian green; underside and legs creamy, tinged with Prussian green on flanks and pilosity of legs; abdomen brownish, with the segments edged with creamy, anal tuft greenish white. Fore wings pale Prussian green; markings Vandyck brown; inner line double, composed of square lunules filled in with whitish, oblique outwards; a rather indistinct discal line of lunules, beginning at costa after the middle, straight as far as lower angle of cell, from there slightly incurved; outer line double, of lunules, filled in with whitish, parallel with the discal line, and ending near tornus; a subterminal series of brown dots preceded by whitish marks; a terminal line of brown streaklets; cilia whitish. Hind wings pale amber brown; costa broadly green, barred with brown. Length of the fore wing 11.5 mm.

Male genitalia. Produced angles of tegumen slender, curved outwards, slightly broader and dentate terminally. Valva narrow, curved; broad terminal portion ending in a lateral lobe, with a few denticulations on its distal margin. Aedeagus shorter than valva, very slender, except at base, curved; prongs of the terminal trident short.

Holotype and paratype, males: Sumatra, Lebong Tandai, 3.XII.1921 and 23-30.IX.1921 (C. J. BROOKS) (BM).

Very near to a continental undescribed species of DUDGEON from Sikkim, labeled as "*St. virescens*" in the British Museum (Natural History), from which latter it is, however, quite distinct. The insular form described above differs in details of the genital armature and must be considered to have reached specific rank.

***Oxoia* gen. nov.**

Fig. 14

Exaereta smaragdiplena Walker, placed by recent authors in the genus *Somera*, obviously does not belong here, because the male genitalia are vastly different;

in fact, they have no features in common with those of *Somera*. Therefore a new genus is erected for the reception of this species.

Male genitalia. Uncus elongated, rather narrow, faintly broader in middle of its length, depressed, hardly arched, slightly produced terminally, both dorsally and ventrally; gnathi relatively very short, slender, arched. Tegumen narrow. Valva elongated; costa strong, sclerotized, very narrow, almost needle-shaped distally; a large fold below costa, underside with a bunch of long deciduous hairs; rest of the valva, except a small basal portion, membraneous. Aedeagus about the length of the valva, moderately stout, with a long slender basal process, depressed distally; fultura inferior membraneous. Saccus very short. Sternal plate of the 8th urite not differentiated.

Type-species; *Exaereta smaragdiplena* Walker.

Corinella gen. nov.

Fig. 23

It is necessary to erect a new genus for *Allodonta vittata* Gaede, owing to the fact that its male genitalia have little in common with the very characteristic structures met with in the genus *Allodonta*.

Antennae fasciculate; palpi rather short and thick, directed obliquely upwards; third joint minute; a long upright thoracic crest; pilosity of legs long; hind tibiae with two pairs of spurs; abdomen only slightly reaching beyond the anal angle of the hind wings. Fore wings elongated; costa arched only along the last quarter; apex rounded; termen oblique, faintly rounded; dorsum with a broad scaly tooth in middle.

Male genitalia. Uncus narrow, distinctly shorter than in *Allodonta* and ending in a small hook, without any broadening; gnathi shorter than uncus, slender, curved. Tegumen and valva rather broad; costa rather broadly sclerotized, broadening distally and produced into a rounded process; basal part of costa fringed with long dense hairs, distal $\frac{2}{3}$ minutely serrate; valvula membraneous; saccus sclerotized, broadly so in proximal two thirds, very narrowly so in the terminal portion. Aedeagus more than twice as long as the costa, very robust; proximal part shaped as a beaver's tail; extremity produced into a ventral tooth and a very long, slender, sickle-shaped process; fultura inferior membraneous. Saccus very short, angulate. Sternal plate of the 8th urite semicircular, with the distal margin straight and bearing in middle two horn-shaped processes.

Type-species: *Allodonta vittata* Gaede.

Oreodonta gen. nov.

Fig. 11

Differs from *Notodonta* Ochseneimer in having the male genitalia of a peculiar type, not nearly related to the structures found in *Notodonta*.

Male genitalia. Base of uncus with the angles produced; extremity ending in two rounded processes; gnathi fused but free at the extremity. Tegumen rather narrow. Valva elongated and narrow; extremity bearing a dorsal and a ventral

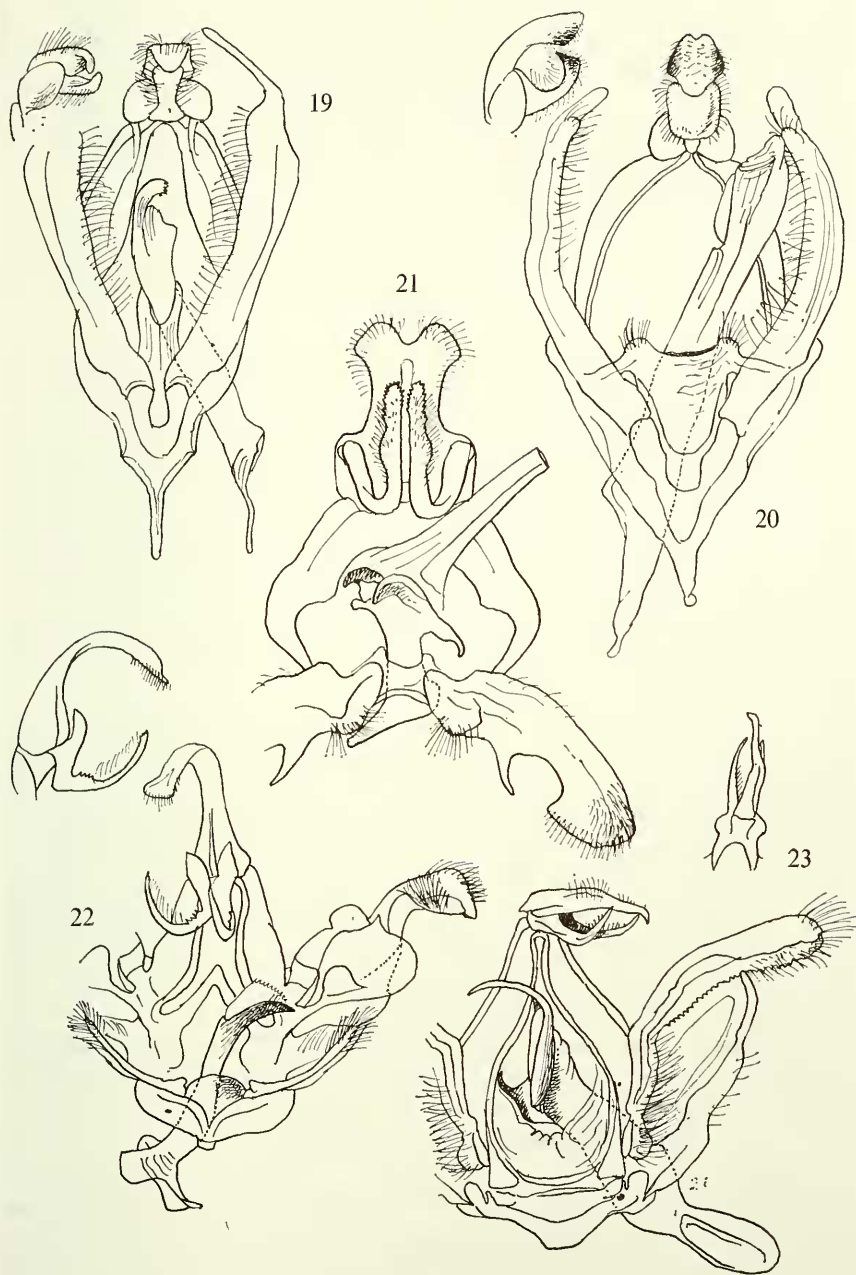


Fig. 19—23. Male genitalia. 19, *Quadricalcarifera viridimargo* sp. n.; 20, *Q. triguttata* sp. n.; 21, *Grangula apicalis* (Moore) g. n.; 22, *Chadisrella javensis* g. et sp. n.; 23, *Corinella vittata* (Gaede) g. n.

lobe; sacculus separated, tongue-shaped, hardly reaching beyond the middle of the costal part. Aedeagus more than twice as long as costa, slender in the proximal $\frac{2}{5}$, then moderately robust; distal margin bearing a lateral spine; fultura inferior narrowing distally. Saccus very short, excised at middle. Plate of the 8th sternite broader proximally, with the proximal margin rounded; distal margin concave, with the angles sharply produced.

Type-species: *Notodonta gigantea* Elwes.

Kumataia gen. nov.

Fig. 10

Antennae of male short-bipectinated for $\frac{1}{2}$; palpi short, thick, upturned, with the last joint blunt; a slender upright thoracic crest; pilosity of legs moderate; hind tibiae with two pairs of spurs. Fore wing rather narrow; costa straight for $\frac{2}{3}$, then rather abruptly bent; apex produced and rounded; termen very oblique, faintly outcurved below the apex, then straight, becoming incurved before the tornus which is hardly marked; dorsum with a broad scaly tuft just before tornus. Hind wings with the apex rounded, reaching beyond the tornus of the fore wings. Venation: in the fore wings, veins 3, 4 well separated; 5 from middle of the discocellular; a very narrow areole present; 6 from $\frac{1}{3}$ of areole; 7 and 10, 8 + 9 from the extremity of areole. In the hind wings, 3, 4 much approximated; 5 from middle of the discocellular; 6, 7 stalked for $\frac{1}{3}$; 8 approximated to cell to near the angle.

Male genitalia. Nearest those of "*Hyperaeschra*" *dentata* Hampson. Uncus short, slightly broader at base and in terminal portion, downcurved, with the extremity faintly bilobate; gnathi not developed. Tegumen moderately broad. Valva roughly triangular, rather narrow; median portion of valvula membranous; distal part of costa with a toothed ridge. Aedeagus as long as costa, very robust, with a terminal slender, beak-shaped process; fultura inferior well developed; distal margin with the angles produced and bent outwards. Saccus hardly differentiated. Sternal plate of the 8th urite semi-elliptical, with the proximal margin faintly outcurved, and the distal margin bearing at middle two short prongs.

Type-species: *Kumataia producta* spec. nov.

I am pleased to name this new genus after Dr. TOSIO KUMATA, of the Hokkaido University, as a token of gratitude for the valuable help proffered.

Kumataia producta spec. nov.

Antennae light brown; palpi and head brown maroon; frons pale brown below; patagia maroon with a whitish edge; tegulae mixed white and maroon, with the inner edge maroon; underside and legs rufous grey; basal abdominal tuft blackish brown; rest of the abdomen more grey; underside rufous buff. Basal third of fore wings blackish brown, streaked with umber brown; inner line which limits the basal dark area, beginning at $\frac{1}{3}$ of costa, incurved below base of nervure 2, then outcurved; outer line black, beginning a little before $\frac{2}{3}$ of costa, outcurved as far as base of nervure 2, then broadening, almost meeting the inner line, and expanding

to reach the scaly tornal tooth; the latter bearing two pale bars; space between lines pale wood-brown, becoming grey brown distally; a small triangular discocellular mark edged with pale wood-brown; nervure 4 thickly streaked with black to near termen; a few pale lunules distally of outer line; outer area grey brown, streaked with pale wood-brown, and with dark brown above nervure 4; an obsolete pale subterminal line; terminal line of black streaklets; cilia rufous grey, spotted brown. Hind wings whitish, tinged and stained with grey brown; terminal line and extremities of cilia brown; anal area darker. Length of the fore wing 21.5 mm.

Holotype, male: S.W. Sumatra, Western slopes of the Barisan Range, 2500 ft., X-XI.1921 (C., F. & J. PRATT) (BM).

Grangula gen. nov.

Fig. 21

Stauropus apicalis Moore, variously alluded to as *Ramesa*, *Fentonia* and *Pseudofentonia*, must be placed in a genus of its own because of divergent structures of the male genitalia.

Proboscis rudimentary (antennae broken off in the type specimen in Berlin Museum); palpi short, hairy, appressed to head; hind tibiae with a single pair of spurs. Fore wings elongate, rather narrow; costa arched in the distal half only; apex rounded; termen oblique, faintly convex from costa to vein 3, then straight; tornus blunt (about 135°); dorsum very faintly curved. Venation: 2 from $\frac{3}{4}$ of cell; 3, 4 approximated; discocellular nearly straight; 5 from slightly above the middle thereof; 6 from a point with the stalk of 7—10; 7 and 10, 8 + 9 rather short stalked. Hind wings with costa faintly but regularly arched; apex rounded. Venation: 2 from $\frac{3}{4}$ of cell; 3, 4 from about a point; discocellular nearly straight; 5 from the upper $\frac{2}{5}$ thereof; 6, 7 stalked for about $\frac{2}{5}$; 8 approximated to cell to near extremity.

Male genitalia. Uncus broad, bilobate; gnathi long, rather slender, angulate in middle, then nearly straight, with the terminal portion finely denticulate. Tegumen moderately broad, abruptly narrowing towards base. Valva narrow; costa convex; apex broadened, nearly spatulate; sacculus strongly excised terminally, the excision preceded by a strong horn-shaped process; base with a small bifid process bearing long hairs. Aedeagus only half of the length of valva, shaped somewhat like a tomahawk, with the main process directed backwards; fultura inferior membranous. Saccus very short. Sternal plate of the 8th urite broad, roughly semicircular; proximal margin very faintly arched, bearing two slender, diverging, slightly asymmetrical processes; distal margin arched, with a median excision.

Type-species: *Stauropus apicalis* Moore.

Chadisrella gen. nov.

Fig. 22

As I have pointed out in a number of papers, the old genus *Chadisra* must be dismembered because of the many very different types of male genitalia its members display. The Ethiopian group has already been dealt with, and none of its

species had proved to be conspecific with the type-species, *Chadisra bipars* Walker. As far as I can judge, the latter must stand as the sole representative of the once numerous genus *Chadisra*. None of the Oriental species I have seen are conspecific, they will be dealt with in the third part of my monograph of the family Notodontidae (in *Genera Insectorum*). The small, hitherto undescribed Javanese species is being presented below as the type of the new genus *Chadisrella*.

Proboscis present; antennae of male denticulate-ciliate; basal article with a fan-shaped crest; palpi rather short, moderately slender, directed obliquely upwards; hind tibiae with two pairs of spurs; a large basal abdominal tuft. Wing shape as in *Chadisra* Walker. Venation: in the fore wings, vein 2 from $\frac{2}{3}$ of cell; 3 and 4 widely separated; 5 from middle of discocellular; a long, narrow areole, reaching half the distance between cell and apex of the wing; 6 from areole, very near the base; 7, 8 + 9 and 10 from extremity of areole. In the hind wings, vein 2 from $\frac{2}{3}$ of cell; 3 and 4 well separated; 5 from nearly the upper $\frac{1}{3}$ of discocellular, very weak; 6 and 7 stalked for $\frac{1}{3}$ of 6; 8 approximated to cell to near extremity.

Male genitalia. Uncus very long, slender, arched, extremity depressed and blunt; gnathi very long, bearing at base a strong process, then slender, curved, with a few denticulations at the base of the curved portion. Tegumen moderately broad, narrowing distally. Valva elongate, rather complicated; costal area sclerotized, very much broadened subterminally, then strongly narrowed and finally again broadened; two lobes at the base; valvula membranous; sacculus sclerotized, very short, tapering and hairy distally. Aedeagus shorter than valva (2 mm as against 2.8 mm), slender, S-shaped, with the proximal part broadened; vesica bearing minute cornuti; fultura inferior convex; fultura superior forming an angle joining the bases of the valvae. Saccus very short. Sternal plate of the 8th urite with the proximal margin slightly angulate; distal margin weakly excised at middle, hairy; two oblique ridges running from the distal angles to middle of the proximal margin.

Type-species: *Chadisrella javensis* spec. nov.

Chadisrella javensis spec. nov.

Antennae brownish; denticulations and cilia pale; palpi cream coloured, dark brown above; crest at the base of antennae, and vertex white mixed with yellowish brown; collar yellowish brown edged with white; tegulae brownish white, variegated with brown; middle of the thorax browner; underside and legs pale buff; fore legs streaked with brown; tarsi ringed with pale and dark; crest at the base of abdomen dark brown, broadly edged with rufous brown; abdomen yellowish brown, paler below. Fore wings pale greyish wood-brown in basal area; basal half of costal area and cell streaked irregularly with dark greyish black; a black oval spot below cell; inner line very conspicuous, limiting the basal streaked area, beginning slightly before middle of costa, running slightly outwards as far as vein 3, with a small angle directed inwards below costa, then bent inwards at a right angle and running parallel to costa, then again bent inwards on the anal, and finally vertical to dorsum, sending out a black streak to basal $\frac{1}{4}$ of the latter; outer part of wing strongly suffused with dark grey brown; outer line double,

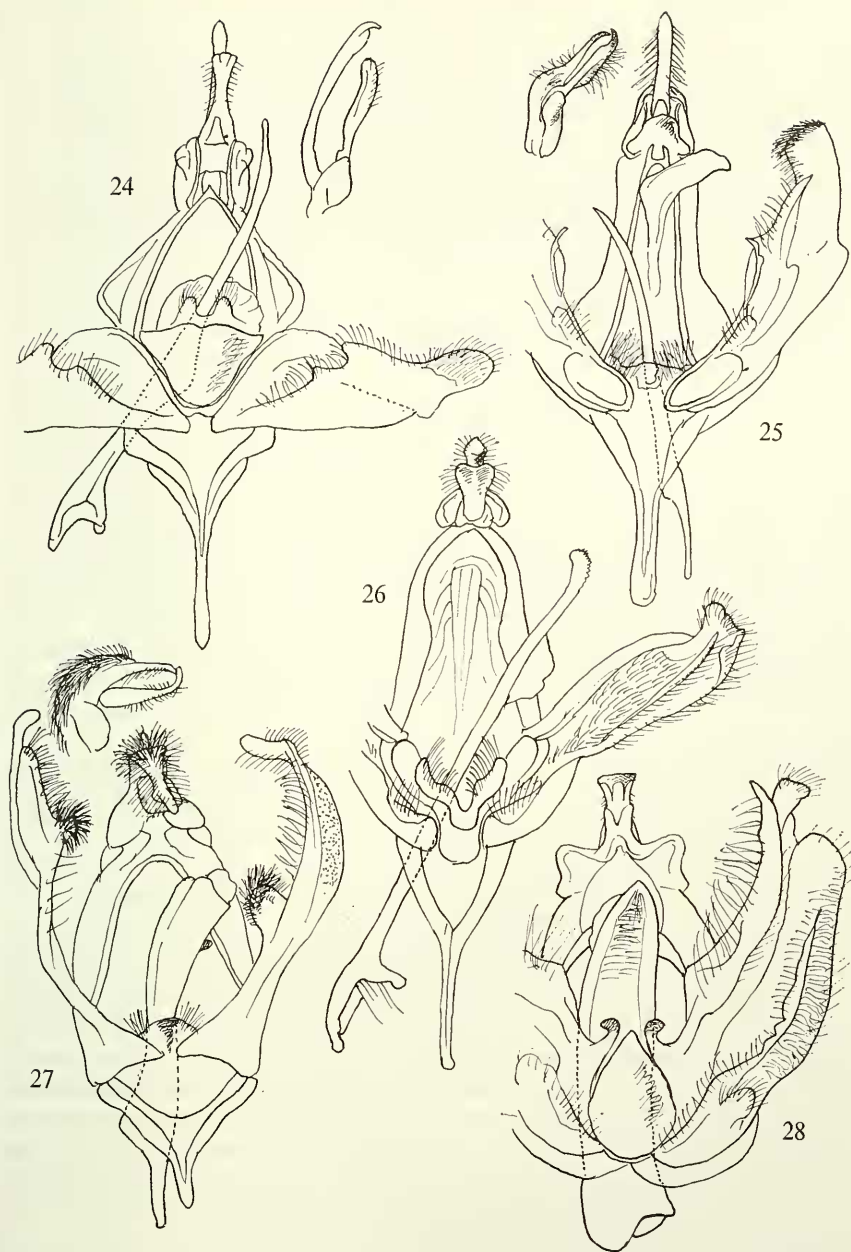


Fig. 24—28. Male genitalia. 24, *Parasinga lichenina* (Butler) g. n.; 25, *P. pallidicollis* sp. n.; 26, *Taiwa confusa* (Wileman) g. n.; 27, *Vaneekia ovalis* (van Eecke) g. n.; 28, *Polyaeschra dentata* (Hampson) g. n.

irregular and dentate, running from $\frac{2}{3}$ of costa to middle of dorsum, and followed by a very irregular dentate band of the ground colour, narrowing towards the dorsum which it reaches at $\frac{4}{5}$; a black subcostal streak; costa partly spotted with black; terminal area preceded by a series of black dots; dark grey brown suffusion limited in that area to veins; cilia spotted with grey brown and whitish. Hind wings brownish white, tinged with brown in costal area, and with pale buff in anal area; ends of veins and terminal line brownish; a black line above anal angle, followed by some brownish; cilia whitish, spotted with brown, but blackish brown before the anal angle and on the anal margin, and pure white at the anal angle. Length of the fore wing 13.5—15.5 mm.

Male genitalia. See above.

Holotype and paratype, males: Java, Batavia, 1887 (RMNH).

Polyaeschra gen. nov.

Fig. 28

New genus created for *Hyperaeschra dentata* Hampson, the male genitalia of which having to do very little indeed with those found in *Hyperaeschra*.

Proboscis reduced; antennae bipectinated for slightly less than $\frac{3}{4}$, longest pectinations $2\frac{1}{2} \times$ breadth of shaft; palpi upturned, moderately thick, oval, last joint hidden; pilosity of legs moderate; hind tibiae with two pairs of spurs; a short basal abdominal tuft. Fore wings rather narrow; costa faintly arched in last third; apex broadly rounded; termen oblique, arched, wavy; tornus very blunt; dorsum more or less straight, with a short and broad scaly tooth at middle. Venation: 2 given off beyond $\frac{3}{4}$ of cell; 3 and 4 separate; 5 from middle of the discocellular; a short areole present; vein 6 from areole near the base; 7 and 10, 8 + 9 from extremity of areole. Hind wings rounded. Venation: vein 2 from $\frac{3}{5}$ of cell; 3 and 4 closely approximated; 5 weak, from middle of the discocellular; 6 and 7 stalked along slightly less than $\frac{1}{4}$; 8 approximated to cell to near the extremity.

Male genitalia. Uncus short, rather narrow, slightly curved at the extremity which is faintly excised; gnathi very short, knob-like. Ninth tergite very broad, produced at the distal angles; tegumen moderately broad. Valva elongate and broad; costa on the whole concave, sacculus convex; the former with a weak angle at $\frac{1}{3}$, hooked terminally; valvula membranous, produced terminally into a small lobe; sacculus broad and sclerotized at the base, and along a dorsal fold; rest membranous. Aedeagus as long as the valva, broad and depressed, distal extremity produced beak-like; fultura inferior broadly almond-shaped. Saccus very short. Sternal plate of the 8th urite broadly rounded; distal margin with two small median processes.

Type-species: *Hyperaeschra dentata* Hampson.

Indonesian specimens, although alike externally, differ from the Indian ones in a few details of male genitalia. Uncus shorter and broader, stronger hooked terminally; proximal angles of the 9th tergite also produced; sacculus much broader at base and swollen; aedeagus more curved. These specimens belong to a distinct subspecies, *Polyaeschra dentata insulicola* subspec. nov. Holotype, male: Java, Batavia, 1884 (RMNH) bearing a label in SNELLEN's hand: "familiaris m.i.l."

Sagamora gen. nov.

Fig. 29

Proboscis reduced; antennae of male bipectinate for $\frac{4}{5}$, longest pectinations $3\frac{1}{2} \times$ breadth of shaft; basal joint with a small crest; palpi moderately long, thick, upturned, last joint minute; prothorax bearing a crest; hind tibiae with two pairs of spurs. Fore wings rather narrow; costa faintly arched; apex slightly rounded; termen oblique, nearly straight between vein 4 and tornus; latter blunt (about 135°); dorsum slightly arched in basal area, with a small scaly tooth just before middle. Venation: distance between veins 2 and 3 twice as great as that between 3 and 4 which are well separated; 5 from middle of the discocellular; 6 from a point with the stalk of 7, 10, 8 + 9. Hind wings broadly rounded. Venation: vein 2 from $\frac{4}{5}$ of cell; 3 and 4 from a point; 5 rather weak, slightly above middle of the discocellular; 6 and 7 stalked for $\frac{1}{6}$; 8 approximated for a while in middle portion to the cell.

Male genitalia. Uncus short, with sides parallel, bearing on each side a squarish lobe produced into a point; gnathi short and slender, curved. Tegumen rather narrow. Valva rather short, narrow, with costa and sacculus nearly parallel; a small basal process, and a terminal fold. Aedeagus much shorter than valva (1.1 mm, as against 1.7 mm), slender, arched; basal extremity broadened and bifid; distal end also widened; fultura inferior small; fultura superior very large, pagoda-shaped, connected with the bases of the valvae. Saccus hardly differentiated. Sternal plate of the 8th urite short semi-elliptical; distal margin bearing four short rounded processes.

Although quite distinctive, the new genus should be placed in the vicinity of the great *Notodonta* complex.

Type-species: *Sagamora umbrina* spec. nov.

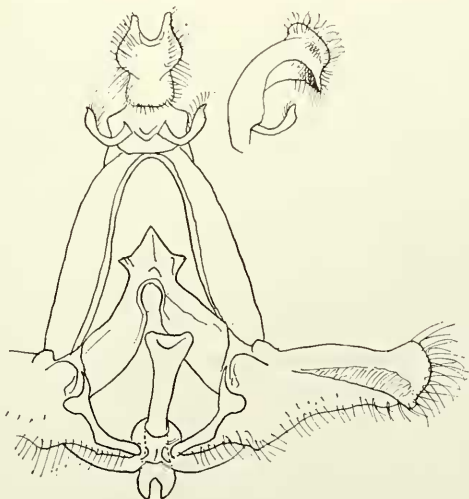


Fig. 29. Male genitalia of *Sagamora umbrina* sp. n.

Sagamora umbrina spec. nov.

Fig. 29

Antennae, palpi, head, collar, underside of thorax and legs, umber brown; tegulae and thorax above sepia grey; tarsi ringed with pale; abdomen sepia brown above, buff below. Fore wings sepia grey, obscurely variegated with blackish; lines double, dentate, filled in with a slightly lighter tone of brown; subbasal line angled outwards below cell; inner line on the whole nearly straight, vertical, running from slightly before $\frac{2}{5}$ of costa to slightly before middle of dorsum, weakly angled inwards below cell; outer line running from $\frac{3}{4}$ of costa to $\frac{4}{5}$ dorsum, broadly dentate, incurved between veins 4 and 1; a dark discal shadow below cell; discocellular mark slightly lighter than ground colour; another dark shadow, broadly bordering the outer line distally; terminal area with a series of rounded blackish spots, absent in intervals III and VI, followed by a series of black dots; cilia spotted with black and edged with whitish. Hind wings dark sepia brown; cilia tipped with whitish. Length of fore wing 16.5 mm.

Holotype, male: Sumatra, Fort de Kock, 920 m, III.1921 (E. JACOBSON) (RMNH).

Allata novaeguineae spec. nov.

Fig. 18

Antennal shaft pale yellowish; pectinations brown; basal tuft pale yellowish; palpi rusty brown, yellowish at base below; head, patagia and tegulae deep rusty brown; metathorax paler; underside of thorax and legs buffy; legs streaked with brown; tarsi ringed with creamy and rusty brown; basal abdominal crest rusty brown at middle, buff laterally; first five abdominal rings rusty yellow, ringed with yellowish; sides and rest of abdomen above rufous grey brown; underside yellowish. Fore wings wood-brown in fore half except distally; rest rufous grey brown; a rusty brown streak below cell, becoming black towards cell, and bearing a minute proximal, a large nearly triangular median and two minute distal silvery spots, the latter connected, and followed by silvery droplets; costal area obscurely barred with dark grey and spotted with black; dorsal tooth rusty brown, barred with pale brown; lines hardly visible; before apex a pale pinkish grey wash, with two blackish brown bars; a subterminal row of fine double lunules, edged with rusty distally; proximally, a broad pinkish grey area in the dorsal half of wing, preceded by a series of more or less confluent blackish brown spots; cilia brownish, with minute white dots at the extremities of veins. Hind wings pale yellowish with a broad (3—4 mm) chocolate grey terminal band; a terminal series of brown streaks; cilia pale yellowish, spotted with chocolate grey. Length of the fore wing 22 mm.

Male genitalia. Very near those in *A. argentifera* Walker and *A. sumatrensis* (Gaede), but the uncus is more slender, the gnathi shorter, more slender, the valva bears at the base of sacculus a large rounded lobe and a second long spine-shaped process, and the aedeagus is more robust.

Holotype and three paratypes, males: Dutch New Guinea, Nomnagihé, 25 ml. south of Wangaar, 2000 ft., I-II.1921 (C., F. & J. PRATT) (BM).

The shape of the sacculus, with an additional long process and a large basal lobe, might perhaps be used in order to isolate this species in a distinct taxon, possibly a subgenus.

Rodneya gen. nov.

Fig. 12

Proboscis reduced; antennae of male long bipectinated for $\frac{3}{5}$, with a large basal tuft; pectinations shorter in female; legs with pilosity long; hind tibiae with two pairs of short spurs; abdomen very long, with a long anal brush in male. Fore wing with a slightly wavy termen and with a short scaly tooth at $\frac{1}{3}$ of dorsum. Venation: veins 3, 4 well separated; 5 from middle of discocellular; 6 short-stalked with 10, 7, 8 + 9. Hind wings with the costa well rounded, with a hairy fringe; cilia produced at the anal angle into a kind of slender tail. Venation: veins 3, 4 approximated; 5 from above middle of discocellular; 6, 7 stalked for about $\frac{1}{4}$; 8 approximated to cell at one point towards the middle of the latter.

Male genitalia. Uncus rather narrow at base, then broadening to form two lobes; gnathi broad, compressed, curved, with a blunt distal margin. Tegumen narrow. Valva long and moderately narrow in basal half, then narrowing to a lobe. Aedeagus slightly longer than valva, rather robust, faintly arched in basal portion; fultura inferior hardly developed; fultura superior produced to a broad hairy lobe. Saccus very short. Plate of the 8th sternite with a deep and narrow incision in middle of distal margin.

Type-species: *Rodneya caudata* spec. nov.

Rodneya caudata spec. nov.

Male. Shaft of antennae whitish; pectinations brown; palpi pale buff, with a dark brown upperside; head and collar pale buff; margin of collar angled and brown; tegulae buffy brown; rest of thorax above and below pale buff; basal abdominal crest brownish; rest of abdomen pale buff; long anal brush brownish. Fore wings light rufous brownish grey; costa faintly marked with brownish; inner line very proximal, fine, blackish, incurved below cell; at the base of vein 2 a conspicuous spot of dark purple, rounded distally, slightly produced proximally, with a proximal streak of silver, and preceded by a mark of orange with some pale in it, extending proximad and merging into the ground colour; a minute black dot in cell and another on the lower angle of the discocellular; outer line undulate, fine, edged with pale distally and formed approximately as in *Fentonia ocypte* Butler; it is preceded on the costa by an oblique blackish streak, becoming very indistinct along the outer line, and ending on dorsum in a diffuse darker blotch, with the outer line showing pale on it; a subapical dark streak; terminal area below it becoming pale yellow, that colour not quite reaching tornus; a double terminal line, its distal element wavy; cilia yellowish at base, then rufous grey. Hind wings pale yellowish, suffused with chocolate brown, except at base and in the anal area;

the latter broadly light orange; anal angle and the thin "tail" darker chocolate brown; cilia cream coloured except in the anal region where they are chocolate brown. Length of the fore wing 25 mm.

Female. Antennal pectinations somewhat shorter; no anal brush. Fore wings slightly broader. Colour slightly more rufous, while the brown subapical streak bears in middle an elongate orange spot. Length of the fore wing 31 mm.

Holotype, male: W. Sumatra, Lebong Tandai, 8-9.XI.1921; two paratypes, males, ibidem, 28.XI.1921 (C. J. BROOKS); allotype, female: Malay States, Bukit Kutu, 3300 ft. (A. R. SANDERSON) (BM).